

Abstract

Title: The effect of paraglider's wear and tear of different performance levels on the flight quality

Aims: The main aim of this thesis is to define all main aspects participating in paraglider's wear and tear and changes of flight quality connected with it. Confirmation or non-confirmation of our assumption that paragliders of lower performance levels are wearing and tearing faster than paragliders of higher performance levels, especially because of poor handling by inexperienced pilots is also an important aim of this thesis.

Methods: A porosimeter JDC MK1 was used as the main diagnostic tool. We have measured a porosity of skytex, material from which the paragliders are sewn. The total number of paragliders has been 253. Results were presented by using Excel spreadsheet and analyzed by using Pearson correlation coefficient.

Results: Paraglider's unequal wear and tear of different performance levels was found. There has been a downward trend in wear and tear on the age of gliders from the category EN B to EN D. Performance category EN A has not been wear and tear on the level that we have expected.

Keywords: paragliding, paraglider, skytex, flight quality, porosity